

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

HARBERD et al

Atty. Ref.: 620-157

Continuation of Serial No. 09/117,853

Group:

(Filed: August 12, 1998)

Filed: July 25, 2001

Examiner:

For: NUCLEIC ACID ENCODING GAI GENE OF ARABIDOPSIS THALIANA

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July 25, 2001

Assistant Commissioner for Patents
Washington, DC 20231

Sir:

PRELIMINARY AMENDMENT

Prior to calculation of the claims, kindly preliminarily amend the above-identified application as follows.

IN THE SPECIFICATION

Before the Figures, insert the Sequence Listing submitted herewith.

IN THE CLAIMS

Cancel claims 1-48 without prejudice and add the following new claims in lieu thereof.

49. (New) An isolated nucleic acid having a nucleotide sequence coding for a polypeptide of which the amino acid sequence has at least 90% amino acid sequence identity with the amino acid sequence shown in Figure 4 (SEQ ID NO:2).

50. (New) An isolated nucleic acid having a nucleotide sequence coding for a polypeptide of the amino acid sequence has at least 90% amino acid sequence identity with the amino acid sequence shown in Figure 4 (SEQ ID NO:2), wherein expression of said nucleic acid in a plant results in inhibition of growth of the plant, the inhibition being antagonised by gibberellin (GA).

51. (New) An isolated nucleic acid having a nucleotide sequence coding for a polypeptide which includes an amino acid sequence which has at least 90% identity with the amino acid sequence shown in Figure 4 (SEQ ID NO:2), wherein expression of said nucleic acid complements a *GAI* null mutant phenotype in a plant, such phenotype being resistance to the dwarfing effect of paclobutrazol.

52. (New) An isolated nucleic acid that hybridizes strongly to a nucleic acid coding for the amino acid sequence is shown in Figure 4 (SEQ ID NO:2).

53. (New) An isolated nucleic acid that hybridizes strongly to a nucleic acid coding for the amino acid sequence shown in Figure 4 (SEQ ID NO:2), wherein

expression of said isolated nucleic acid in a plant results in inhibition of growth of the plant, the inhibition being antagonised by gibberellin (GA).

54. (New) An isolated nucleic acid that hybridizes strongly to a nucleic acid coding for the amino acid sequence shown in Figure 4 (SEQ ID NO:2), wherein expression of said isolated nucleic acid complements a *GAI* null mutant phenotype in a plant, such phenotype being resistance to the dwarfing effect of paclobutrazol.

55. (New) An isolated nucleic acid according to any one of claims 50, 51, 53 and 54 wherein said plant is *Arabidopsis thaliana*.

56. (New) Nucleic acid according to any one of claims 49 to 54 further comprising a regulatory sequence for expression.

57. (New) Nucleic acid according to claim 56 wherein the regulatory sequence comprises an inducible promoter.

58. (New) A nucleic acid vector suitable for transformation of a plant cell and comprising nucleic acid according to any one of claims 49 to 54.

59. (New) A host cell containing heterologous nucleic acid according to any one of claims 49 to 54.

60. (New) A host cell according to claim 59 which is a plant cell.

61. (New) A plant cell according to claim 60 having said heterologous nucleic acid within its genome.

62. (New) A plant cell according to claim 61 which is comprised in a plant, a plant part or a plant propagule, or extract or derivative of a plant.

63. (New) A method of producing a cell according to claim 60, the method comprising incorporating said nucleic acid into the cell by means of transformation.

64. (New) A method according to claim 63, which comprises recombining the nucleic acid with the cell genome nucleic acid such that it is stably incorporated therein.

65. (New) A method according to claim 64 which comprises regenerating a plant from one or more transformed cells.

66. (New) A method according to claim 65 comprising sexually or asexually propagating or growing off-spring or a descendant of the plant regenerated from said plant cell.

67. (New) A plant comprising a plant cell according to claim 61.

68. (New) A method of producing a plant, the method comprising incorporating nucleic acid according to any one of claims 49 to 54 into a plant cell and regenerating a plant from said plant cell.

69. (New) A method of influencing a characteristic of a plant, which characteristic is selected from plant growth and flowering time, the method comprising causing or allowing expression from heterologous nucleic acid according to any one of claims 49 to 54 within cells of the plant.

REMARKS

Entry of the foregoing amendments is respectfully requested.

The specification has been amended to include the Sequence Listing submitted herewith on separate sheets. Entry of the Sequence Listing does not raise the issue of new matter as the sequence information contained therein is presented in the application as originally filed. The computer readable copy of the Sequence Listing submitted herewith is believed to be the same as the attached paper copy of that Listing.

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Respectfully submitted,

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